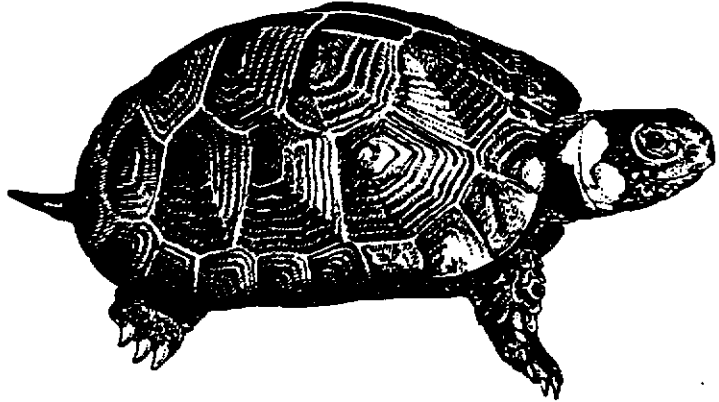


## MASSACHUSETTS RARE AND ENDANGERED WILDLIFE

### BOG TURTLE Clemmys muhlenbergii (Schoepff)

#### DESCRIPTION

The Bog Turtle is a small (3-4"/7.6-10 cm.) turtle with a mahogany, dull brown or black oblong carapace (upper shell), with faint yellowish or reddish blotches centered in each scute. The plastron (lower shell) is black, irregularly marked with yellow. The black head bears the most striking feature of this species, a large bright orange spot behind each ear. The neck is brown and the tail and legs are brownish yellow or dark brown. In males the tail is longer and thicker than in females, and the plastron is more concave.



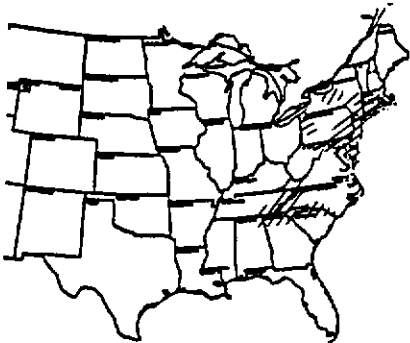
DeGraaf, R.M. and D.P. Radtke. Amphibians and Reptiles of New England. University of Mass., Amherst. 1983.

#### HABITAT IN MASSACHUSETTS

Bog Turtles in Massachusetts inhabit low-lying open calcareous wetlands, notably fens. Bog Turtles occur in small patches of optimal habitat within a dynamic wetland system. These patches are open, early successional stages of wet meadow, surrounded by advanced successional stages of freshwater marsh or wooded swamp. New England Bog Turtle habitats are characterized by a mosaic of wetland plants, including many regionally rare species.

#### BEHAVIOR

Although terrestrial, the Bog Turtle confines its wanderings to swampy locations and is more agile in the water. The Bog Turtle is usually found with its "feet wet and its back dry." This secretive turtle hibernates from mid-autumn to late March or April in subterranean seepage areas with a continual source of flowing water. When they emerge from hibernation, Bog Turtles spend much time basking on warm sunny days in spring and early summer. The species may aestivate during the dry summer months, July and August. Individuals spend their nights under a cover of moss, and they may remain completely sheltered on cool days. Most active in April, May, June and September, the turtle maintains a small home



Distribution of Clemmys muhlenbergii

(continued overleaf)

## BOG TURTLE (continued)

range of approximately 1.28 hectares. When alarmed, the Bog Turtle digs rapidly into the mucky substrate.

### FEEDING HABITS

The omnivorous Bog Turtle forages both on land and underwater. The diet consists primarily of insects although availability seems to determine food consumption. Other favorites include slugs, beetles, millipedes, insect larvae, earthworms, pondweed and sedge seeds and other vegetal material.

### BREEDING HABITS

Sexual maturity occurs at around ten years for females. Mating usually takes place in May through early June. Females remain in seclusion during the mating season, while males become quite active and search for them. Clutches of 2-5, usually 3, white, elliptical eggs are laid during midsummer under moss; they incubate for 7-8 weeks and hatch in late summer. In northern locations, hatchlings may overwinter in the nest.

### RANGE

The Bog Turtle has a discontinuous and localized distribution extending from Berkshire County, Massachusetts through western Connecticut, southern New York, New Jersey and eastern Pennsylvania, and southward in the Appalachian Mountains to Georgia. Disjunct populations occur in the Lake George and Finger Lakes regions of New York and in western Pennsylvania.

### POPULATION STATUS

The Bog Turtle is listed as "Endangered" in Massachusetts where it is known to occur at only three sites. Since Massachusetts lies on the northern periphery of the range, Bog Turtles have apparently always been uncommon in the state. In addition, low reproductive output, low juvenile survivorship, and a long period to sexual maturity inhibit long-term viability of small, isolated Bog Turtle populations. In Massachusetts, the destruction and disruption of suitable wetland habitat threatens the survival of the species.

Adapted from Klemens, M. 1987. Bog Turtle. In T. W. French and J. E. Cardoza (eds.). Endangered, Threatened and Special Concern Vertebrates of Massachusetts. Massachusetts Division of Fisheries and Wildlife. (in press).